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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/700,319      | 11/03/2003  | Margaret S. Mortz    | 41942-05546         | 5097             |

7590 06/13/2005

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EXAMINER

WINAKUR, ERIC FRANK

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 3736     |              |

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/700,319             | MORTZ, MARGARET S.  |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Eric F Winakur         | 3736                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 08 April 2005.  
 2a) This action is **FINAL**.                            2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 16-39 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 16,18,20,22,27,28,33,34 and 39 is/are rejected.  
 7) Claim(s) 17,19,21,23-26,29-32 and 35-38 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/11/05</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. The Office action mailed 23 February 2005 is hereby withdrawn, as it was based upon claims in a preliminary amendment that was incorrectly associated with the instant application. That preliminary amendment was intended for a related case (10/749,139), and has now been placed in the case file for the '139 application.
2. The following action is based upon the claims presented in the preliminary amendment filed 8 April 2005.

#### ***Claim Objections***

3. Claims 20 - 26 and 39 are objected to because of the following informalities: With regard to claims 20 and 23, it appears that the term "whereby" (usually used to indicate a result, without providing a further claim limitation) should be changed to "wherein" (to more positively claim the subject matter that follows this term). With regard to claim 21, the phrase "step of" should be deleted, as the claim is directed to an apparatus. With regard to claim 39, the phrase "artifactportion" (line 12) should be written as two terms, "artifact portion". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 16, 18, 20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Flower et al. Figure 1, and the description thereof, teaches an arrangement for determining oxygen saturation and pulse rate information. In addition, signal quality information is analyzed and displayed with different symbols used according to the calculated quality level. All noise that lowers signal quality, including a probe off condition, is analyzed and indicated by the symbols (column 7, lines 17 - 52).
6. Claims 27, 28, 33, 34, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Diab et al. Diab et al. teach a pulse oximetry method that performs optical measurements at two different wavelengths, processes the detected signals to distinguish desired (correlated) and noise (uncorrelated) portions of the signals, uses adaptive noise cancellation to eliminate artifact (noise) from the detected signals, and analyzes the resulting signal to calculate oxygen saturation values with reduced noise influence.

#### ***Allowable Subject Matter***

7. The following is a statement of reasons for the indication of allowable subject matter: In addition to the references discussed above, Applicant cites several references related to measurement of oxygen saturation of a subject. None of the prior art teaches or suggests, either alone or in combination, a method that includes either determining a degree of correlation between first and second signals, selecting between separate processing paths for use in generating a first processor output, performing a signal quality analysis and comparing the result with a threshold, and using the result to

determine whether to use processed information to provide oxygen saturation output, or determining a statistical relationship between corresponding portions of signals within a time window, in combination with the other claimed steps.

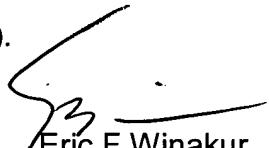
8. Claims 17, 19, 21, 29 - 32, and 35 - 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. With regard to claim 21, the objections set forth in paragraph 3 above must be addressed.

9. Claims 23 - 26 would be allowable if rewritten or amended to overcome the objections set forth in paragraph 3 of this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric F Winakur whose telephone number is 571/272-4736. The examiner can normally be reached on M-Th, 7:30-5; alternate Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max Hindenburg can be reached on 571/272-4726. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric F Winakur  
Primary Examiner  
Art Unit 3736

4 May 2005